

I. AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-4 (cancelled)

Claim 5 (currently amended) A method of ~~treating dry eye in~~ increasing expression of 15-lipoxygenase (15-LO) in ocular surface epithelium of a postmenopausal patient suffering from dry eye, said method comprising ~~incorporating nucleic acid into an~~ in situ contacting an ocular cell with exogenous nucleic acid under conditions permissive for the uptake of said nucleic acid into said ocular cell such that the cell expresses the protein encoded by the nucleic acid, said nucleic acid encoding a protein having the sequence set forth in SEQ ID NO:2, ~~whereby said nucleic acid is expressed and said disease is treated thereby.~~

Claim 6 (previously presented) The method of claim 5, wherein said nucleic acid sequence consists essentially of the sequence set forth in SEQ ID NO:1.

Claim 7 (previously presented) The method of claim 6, wherein said cell is a conjunctival or corneal epithelial cell.

Claim 8 (previously presented) The method of claim 7, wherein said cell is debrided prior to introducing said exogenous nucleic acid.

Claim 9 (original) The method of claim 6, wherein said nucleic acid is in a viral vector.

Claim 10 (original) The method of claim 6, wherein said nucleic acid is in a plasmid.

Claim 11 (original) The method of claim 10, wherein said nucleic acid is in a retrovirus.

Claim 12 (original) The method of claim 10, wherein said nucleic acid is in an adenovirus.

Claim 13 (original) The method of claim 10, wherein said nucleic acid is in an adeno-associated virus.

Claim 14 (currently amended) A method of ~~treating dry eye in~~ increasing expression of 15-lipoxygenase 2 (15-LO-2) in ocular surface epithelium of a postmenopausal patient suffering from dry eye, said method comprising ~~incorporating nucleic acid into an in situ contacting an ocular cell with exogenous nucleic acid~~ under conditions permissive for the uptake of said nucleic acid into said ocular cell such that the cell expresses the protein encoded by the nucleic acid, said nucleic acid encoding a protein having the sequence set forth in SEQ ID NO:4, ~~whereby said nucleic acid is expressed and said disease is treated thereby.~~

Claim 15 (previously presented) The method of claim 14, wherein said nucleic acid sequence consists essentially of the sequence set forth in SEQ ID NO:3.

Claim 16 (previously presented) The method of claim 15, wherein said cell is a conjunctival or corneal epithelial cell.

Claims 17 (previously presented) The method of claim 16, wherein said cell is debrided prior to introducing said exogenous nucleic acid.

Claim 18 (original) The method of claim 15, wherein said nucleic acid is in a viral vector.

Claim 19 (original) The method of claim 15, wherein said nucleic acid is in a plasmid.

Claim 20 (original) The method of claim 19, wherein said nucleic acid is in a retrovirus.

Claim 21 (original) The method of claim 19, wherein said nucleic acid is in an adenovirus.

Claim 22 (original) The method of claim 19, wherein said nucleic acid is in an adeno-associated virus.